

02315030 **Image available**
LIQUID CRYSTAL DISPLAY DEVICE

B64

PUB. NO.: 62-231930 [JP 62231930 A]
PUBLISHED: October 12, 1987 (19871012)
INVENTOR(s): SUGIHARA KENICHIRO
TANAKA YUJI
NAKANISHI TORU
APPLICANT(s): STANLEY ELECTRIC CO LTD [000230] (A Japanese Company or
Corporation), JP (Japan)
APPL. NO.: *61-074292* [JP 8674292]
FILED: April 02, 1986 (19860402)

ABSTRACT

PURPOSE: To easily increase the size of a liquid crystal display device at low cost by mixing desired pigments with cholesteric-nematic mixed liquid crystal made in microcapsules and printing the mixture on a film substrate where a transparent electrode.

CONSTITUTION: Cholesteric liquid crystal and P-type nematic liquid crystal are mixed together into P-type liquid crystal, whose pitch is adjusted properly to about 5-15.μm to obtain microcapsules; and pigments of the three primary colors R, G, and B are mixed to form three kinds of inklike liquid crystal 10. Those three kinds of liquid crystal 10 are printed on an upper substrate 11 which is a film substrate, a lower substrate 12 provided with a counter electrode is arranged, and upper and lower polarizing plates 13 and 13 are provided on both sides. Thus, a liquid crystal cell which makes a full-color display is constituted and driven with a voltage signal applied between the upper and lower electrodes. The film substrates are used, so they can be connected to a printed board, electrode terminals are easily led out, and a little space for leading out the terminals is required, so the size is easily increased.